



# AGS

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April 18, 2024

P/W 1406-06

Report No. 1406-06-B-8

**Attention:** Mrs. Rita Mahoney

**Subject:** *Soils of Statewide Significance, Questhaven Property, San Elijo Road, APNs 223-080-46, 223-070-08 & 223-070-07, County of San Diego, California*

**References:** See Appendix

In accordance with your request, Advanced Geotechnical Solutions, Inc. (AGS) has reviewed the referenced geologic and geotechnical reports previously prepared for the project site and utilized the Web Soil Survey (WSS) mapping tool provided by the United States Department of Agriculture (USDA) – National Resources Conservation Service (NRCS) to help evaluate if soils of statewide significance are present in the proposed development area as shown on County of San Diego GIS maps.

WSS mapping identifies a portion of the site as containing Huerhuero loam, 2 to 9 percent slopes (HrC). The approximate limits of this unit appear to correlate with County of San Diego mapping identifying soils of statewide significance. Review of the NRCS Map Unit Description for the Huerhuero loam, 2 to 9 slopes indicates that the loam soil is limited to upper 12 inches of the soil profile. The loam is underlain by clay soils to an approximate depth of 55 inches which is underlain by stratified sand to sandy loam to a depth of approximately 72 inches. Geologically, this soil unit is identified as calcareous alluvium derived from sedimentary rock.

Between 2014 and 2016, AGS performed multiple subsurface explorations at the subject site which included the excavation, logging and sampling of 24 exploratory trenches to evaluate the prevailing soil and geologic conditions, and the advancement of 6 infiltration test borings to evaluate the permeability of the upper soils. In addition, laboratory testing was performed on collected samples to classify the soils and evaluate their physical properties. The exploratory excavations in the area mapped as potentially having the Huerhuero loam soil generally encountered clay rich colluvium and undocumented fill soils in the upper few feet with claystone and clayey sandstone of the Santiago Formation beneath which do not correlate with the Huerhuero loam. Localized areas encountered topsoil and alluvium that correlate better to the Huerhuero loam, but these areas were localized and discontinuous in nature. This is likely due to removal or redistribution of the near surface soils during grading activities performed between the 1980's and early 2000's. Review of historic aerial photos show that the vast majority of the subject land area had been denuded and significantly altered by 2002. This is further evidenced by the undocumented fill soils that were encountered during our subsurface explorations that were up to eight (8) feet in thickness.

Laboratory and infiltration testing performed indicate the prevailing shallow soil conditions are expansive due to the high fat clay content and have low to negligible permeability. These soil properties indicate they

would have poor drainage and require amendments such as gypsum to 'loosen' the soil for agricultural purposes.

It is our opinion that the prevailing soil conditions do not correlate to the Huerhuero loam, and that the distribution of soils of statewide significance is significantly less than shown on County of San Diego GIS mapping likely to due to previous site use and grading activities.

Advanced Geotechnical Solutions, Inc. appreciates the opportunity to provide you with geotechnical consulting services and professional opinions. If you have any questions, please contact the undersigned at (619) 867-0487.

Respectfully Submitted,  
**Advanced Geotechnical Solutions, Inc.**



PAUL J. DERISI  
PG 8457/CEG 2536, Reg. Exp. 5-31-25  
Distribution: (1) Addressee  
Attachments: References



**APPENDIX**  
**REFERENCES**

- Advanced Geotechnical Solutions, Inc., 2014, “Geotechnical/Geologic Due Diligence Evaluation of San Elijo – Questhaven Property, South of San Elijo Road, San Marcos Area, County of San Diego, California”, dated September 2, 2014, Report No. 1406-06-B-2.
- . (2015), “Preliminary Infiltration Testing Results and Conclusions Regarding Hydrologic Conditions, San Elijo – Questhaven Property, South of San Elijo Road, San Marcos Area, County of San Diego, California”, dated November 18, 2015, Report No. 1406-06-B-3.
- . (2016), “Preliminary Geotechnical Investigation of San Elijo – Questhaven Property, South of San Elijo Road, San Marcos Area, County of San Diego, California”, dated March 11, 2016, Report No. 1406-06-B-6.